

CLAIMS

1. A printing module provided with an impression roller, a plate cylinder assembly comprising a plate cylinder which is provided with a print image and which, in use, with interposition of a substrate to be printed, abuts against the impression roller, an anilox roller and a doctor roller, the doctor roller taking up ink from an ink reservoir, the anilox roller being arranged between the doctor roller and the plate cylinder, such that a desired amount of ink is taken off the doctor roller by the anilox roller and transferred to the plate cylinder, the position of the plate cylinder being settable, the position of the anilox roller being settable, and the impression roller being rotatably bearing-mounted in a main frame, characterized in that the plate cylinder is rotatably bearing-mounted in a first subframe which is movably connected with the main frame for the purpose of the positioning of the plate cylinder relative to the impression roller, while the anilox roller and the doctor roller are rotatably bearing-mounted in a second subframe which is movably connected with the main frame for the purpose of the positioning of the anilox roller relative to the plate cylinder, movable connections being so designed that a positioning change of the plate cylinder relative to the impression roller does not affect the positioning of the anilox roller relative to the plate cylinder and that a positioning change of the anilox roller relative to the plate cylinder does not affect the positioning of the plate cylinder relative to the impression roller.
2. A printing module according to claim 1, wherein the plate cylinder assembly is provided with a stop surface, the second subframe being provided with a stop which, in use, abuts against the stop surface of the plate cylinder.
3. A printing module according to claim 2, wherein the position of the stop of the second subframe relative to the second subframe is settable.

4. A printing module according to claim 2, wherein the position of the stop surface on the plate cylinder assembly relative to the plate cylinder assembly is settable.
5. A printing module according to claim 1, wherein the movable
5 connection between the second subframe and the main frame is realized via a movable connection between the second subframe and the first subframe.
6. A printing module according to claim 1, wherein the movable connection between the first subframe and the main frame is a connection pivotable about a first pivot.
- 10 7. A printing module according to claim 5, wherein the movable connection between the second subframe and the first subframe is a connection pivotable about a second pivot.
8. A printing module according to claim 1, wherein the movable connection between the second subframe and the main frame is a connection
15 pivotable about a second pivot connected with the main frame.
9. A printing module according to any one of the preceding claims, provided with a first piston-cylinder assembly which has a first end connected with the main frame and which has a second end connected with the first movable subframe, such that with the aid of the first piston-
20 cylinder assembly the pressure which the plate cylinder exerts in use on the impression roller is settable.
10. A printing module according to claim 1, provided with a second piston-cylinder assembly which has a first end connected with the main frame and which has a second end connected with or abutting against the
25 second subframe, such that with the aid of the second piston-cylinder assembly, the second subframe is adjustable relative to the main frame.
11. A printing module according to claim 2, provided with a second piston-cylinder assembly which has a first end connected with the first subframe and which has a second end connected with or abutting against

the second subframe, such that with the aid of the second piston-cylinder assembly, the second subframe is adjustable relative to the first subframe.

12. A printing module according to any one of the preceding claims, wherein the plate cylinder assembly is provided with a stationary shaft on
5 which the plate cylinder is rotatably bearing-mounted, while on opposite sides of the plate cylinder a stop ring is provided which forms the stop surface and is fixedly connected with the stationary shaft, while on opposite sides of the plate cylinder a supporting ring is fixedly connected with the stationary shaft.
- 10 13. A printing module according to claim 12, wherein the first subframe comprises two receiving units disposed on opposite sides of the plate cylinder, in which receiving units rest the supporting rings when the plate cylinder assembly in the operative position is mounted in the printing module.
- 15 14. A printing module according to claim 13, wherein the receiving units are each provided with a supporting surface which is provided with a particular curve, the curve being such that the distance between plate cylinder and the anilox roller on the one hand and the distance between the plate cylinder and the impression roller on the other in each case remain
20 pairwise equal to each other at different diameters of plate cylinders, which are provided with supporting rings of diameters matching the plate cylinders.
15. A printing module according to claim 13, wherein fixation means are provided for fixating a plate cylinder assembly in the receiving units, the
25 fixation means being located substantially under the plate cylinder assembly.
16. A printing module according to claim 15, wherein the fixation means comprise two rods which, at an upwardly directed end, are provided with a hook, the two hooks engaging, on opposite sides of the plate cylinder, the
30 stationary shaft of the plate cylinder assembly when the plate cylinder

assembly is in the operative position, while on the rods a pull force is exerted for pressing the plate cylinder assembly into the receiving units.

17. A printing module according to claim 16, wherein the two rods, at the ends remote from the hooks, are each connected with a piston-cylinder assembly for adjusting the position of the rods in a longitudinal direction thereof and for exerting said pull force.

18. A printing module according to any one of claims 15-17, wherein the fixation means are further provided with bearing surfaces on which rests the plate cylinder assembly when the fixation means are in a release position, while the plate cylinder assembly in this release position is lifted out of the receiving units and is moved upwards, such that the plate cylinder assembly can be simply taken out of the printing module.

19. A printing module according to claims 16 and 18, wherein each rod is provided with a said bearing surface, which bearing surface upon upward movement of the rods in the direction of the longitudinal axes of the rods automatically enters into engagement with the stationary shaft and thereby lifts the plate cylinder assembly from the receiving units.

20. A printing module according to claim 15, wherein substantially above the receiving units receiving means are provided for mounting additional processing means.

21. A printing module according to claim 20, wherein the receiving means comprise two guides.

22. A printing module according to claim 20 or 21, wherein the additional processing means comprise, for instance, substrate web inverting units, winders, laminating units or the like.

23. A printing machine provided with a printing module according to any one of the preceding claims.